

State of Michigan
Civil Service Commission

Capitol Commons Center, P.O. Box 30002
Lansing, MI 48909

Position Code 1. TRAENGE14R

POSITION DESCRIPTION

This position description serves as the official classification document of record for this position. Please complete the information as accurately as you can as the position description is used to determine the proper classification of the position.	
2. Employee's Name (Last, First, M.I.)	8. Department/Agency TRANSPORTATION CENTRAL OFFICE
3. Employee Identification Number	9. Bureau (Institution, Board, or Commission) BUREAU OF FIELD SERVICES
4. Civil Service Position Code Description TRANSPORTATION ENGINEER-E	10. Division Transportation Systems Maintenance and Operations
5. Working Title (What the agency calls the position) TRAFFIC SIGNAL DESIGN ENGINEER	11. Section ITS Operations
6. Name and Position Code Description of Direct Supervisor SMALLEY, ERIK M; ENGINEER MANAGER LICENSED-2	12. Unit SIGNAL SYSTEM DESIGN
7. Name and Position Code Description of Second Level Supervisor OWEN, HILARY L; ENGINEER MANAGER LICENSED-4	13. Work Location (City and Address)/Hours of Work 6333 OLD LANSING ROAD, LANSING, MI 48917 / M-F 7:30am-4:30pm(hours may vary)
14. General Summary of Function/Purpose of Position Function as a transportation engineer, completing or overseeing a variety of assignments in traffic signals design including such things as signal plan review of design plans prepared by MDOT staff or consultant, packaging of projects for letting including all appropriate supporting paperwork, assisting in the development of new and updated existing traffic signal special provisions and construction details.	

15. Please describe the assigned duties, percent of time spent performing each duty, and what is done to complete each duty.

List the duties from most important to least important. The total percentage of all duties performed must equal 100 percent.

Duty 1**General Summary:****Percentage: 40**

Review design plans as they pertain to Signal Design concerns. Oversee signal plan preparation. Compile bid packages for letting.

Individual tasks related to the duty:

- Review design plans for electronic traffic control devices.
- Assist in the preparation and compilation of construction bid packages.
- Review and comment on base, preliminary, and Omission and Errors Check (OEC) plans prepared by the department or consultants as they pertain to the design of electronic traffic control devices.
- Assist in evaluation of consultants based on their design plans.
- Reduce the impact of major development on trunkline traffic by reviewing and developing recommendations regarding intersection sight distance, driveway spacing, traffic signals, the need for passing flares, or left or right turn lanes and alignments.
- Assist in preparing engineering calculations, justification reports, geometric drawings, and analyses of the adequacy of proposed designs as required.
- Develop, compare, and justify alternatives for major improvement and expansion projects.

Duty 2**General Summary:****Percentage: 25**

Review base, preliminary, and Omission and Errors Check (OEC) plans prepared by the department or consultants as they pertain to signal design. Update specifications and construction details.

Individual tasks related to the duty:

- Facilitate in the process of updating specifications and construction details and getting them approved.
- Investigate and develop feasible solutions using innovative technologies.
- Assist in developing and disseminating consistent design criteria.
- Evaluate consultants based on their design plans.
- Maintain database of approved drawings for electronic traffic control devices.
- Assist in website updates with most current design details and criteria.

Duty 3**General Summary:****Percentage: 25**

Prepare and oversee preparation of work authorizations for new and revised electronic traffic control devices.

Individual tasks related to the duty:

- Review work authorization design plans as they pertain to the proposed operation of the electronic traffic control device.
- Provide direction to the designer regarding equipment needs to ensure the desired operation of the device.
- Initiate inspection work authorization packages based on approved plans and monthly bid lettings.
- Assist in obtaining all components necessary for each work authorization package.
- Review work authorization packages for completion.
- Track status of work authorizations using various software programs.
- Coordinate with other MDOT staff to ensure proper SAFESTAT entries are completed.
- Maintain database of electronic traffic control devices including data entry in SAFESTAT.

Duty 4**General Summary:****Percentage: 10**

Attend meetings to provide information on electronic control devices. If there is policy information to explain or sensitive issues a supervisor or senior engineer will also attend to clarify the department's position.

Individual tasks related to the duty:

- Attend meetings within the department and with representatives of local governmental units and interested citizens to provide information on electronic traffic control devices. On matters concerning sensitive issues, provide assistance to senior engineers or supervisor as they clarify the department's position.
- Attend design meetings as required including kickoff, utility coordination, and OEC.
- Assist in providing direction to the designer regarding changes in equipment, standards, details, pay items, and special provisions relating to the design of electronic traffic control devices.
- Assist in the selection of appropriate method for implementation of traffic control device replacement and/or upgrade.
- Utilize teaming to improve customer service.

16. Describe the types of decisions made independently in this position and tell who or what is affected by those decisions.

Assist in the resolution of traffic signal design issues. Assist in the selection of appropriate method for implementation of traffic control device replacement and/or upgrade.

17. Describe the types of decisions that require the supervisor's review.

1. Prioritization of work assignments.
2. Decisions impacting statewide programs.
3. Annual work plans and schedules.
4. Establishment of program objectives.

18. What kind of physical effort is used to perform this job? What environmental conditions in this position physically exposed to on the job? Indicate the amount of time and intensity of each activity and condition. Refer to instructions.

Most of the work involves sitting at a desk or computer terminal for an extended period of time with intense concentration required. Must be able to travel statewide. Must be able to perform outdoor work under heavy traffic conditions and adverse weather conditions. During this time, walking over rough terrain and standing are activities that occur frequently.

19. List the names and position code descriptions of each classified employee whom this position immediately supervises or oversees on a full-time, on-going basis.

Additional Subordinates

20. This position's responsibilities for the above-listed employees includes the following (check as many as apply):

- | | | | |
|----------------------------|------------------------------------|----------------------------|-----------------------------------|
| <input type="checkbox"/> N | Complete and sign service ratings. | <input type="checkbox"/> N | Assign work. |
| <input type="checkbox"/> N | Provide formal written counseling. | <input type="checkbox"/> N | Approve work. |
| <input type="checkbox"/> N | Approve leave requests. | <input type="checkbox"/> N | Review work. |
| <input type="checkbox"/> N | Approve time and attendance. | <input type="checkbox"/> N | Provide guidance on work methods. |
| <input type="checkbox"/> N | Orally reprimand. | <input type="checkbox"/> N | Train employees in the work. |

22. Do you agree with the responses for items 1 through 20? If not, which items do you disagree with and why?

Yes.

23. What are the essential functions of this position?

Function as a transportation engineer, completing or overseeing a variety of assignments in traffic signals design including such things as signal plan review of design plans prepared by MDOT staff or consultant, packaging of projects for letting including all appropriate supporting paperwork, assisting in the development of new and updated existing traffic signal special provisions and construction details.

24. Indicate specifically how the position's duties and responsibilities have changed since the position was last reviewed.

Updating to remove instances of journeyman and consistent use of "assist with".

25. What is the function of the work area and how does this position fit into that function?

This unit establishes the design and standard application for installation and operation of traffic control devices and traffic signal systems on the state trunkline system. This includes conducting traffic engineering studies, development of standard design guides and specifications, as well as preparation of correspondence, reports, program evaluations, contract documents, work authorizations, and traffic signal timing permits. This position will work exclusively in the Design subunit of the Traffic Signals unit.

26. What are the minimum education and experience qualifications needed to perform the essential functions of this position.

EDUCATION:

Possession of a bachelor of science degree in engineering.

EXPERIENCE:

Transportation Engineer 9

No specific type or amount is required.

Transportation Engineer 10

One year of professional engineering experience involved in transportation systems and programs equivalent to a Transportation Engineer 9.

Transportation Engineer P11

Two years of professional engineering experience involved in transportation systems and programs equivalent to a Transportation Engineer, including one year equivalent to a Transportation Engineer 10.

Alternate Education and Experience

Transportation Engineer 9 - 12

Possession of a registered professional engineer license as required by the State of Michigan may be substituted for 6 months of experience at the Transportation Engineer 9-12 levels. This substitution may only be used once for any employee for qualification of appointment or early reclassification.

KNOWLEDGE, SKILLS, AND ABILITIES:

Ability to organize and analyze data consisting of many variables that can lead to a decision based upon experience and judgement. Ability to write clear and concise letters and reports; effective verbal communication skills are necessary. Knowledge of traffic engineering principles and practices applied to operations, geometrics, sign and signal design and crash analysis. Knowledge of the use and applications of computer models.

CERTIFICATES, LICENSES, REGISTRATIONS:

Valid driver's license.

NOTE: Civil Service approval does not constitute agreement with or acceptance of the desired qualifications of this position.

I certify that the information presented in this position description provides a complete and accurate depiction of the duties and responsibilities assigned to this position.

Supervisor Date

TO BE FILLED OUT BY APPOINTING AUTHORITY

Indicate any exceptions or additions to the statements of employee or supervisors.

N/A

I certify that the entries on these pages are accurate and complete.

LOGAN CULP 9/23/2021

Appointing Authority Date

I certify that the information presented in this position description provides a complete and accurate depiction of the duties and responsibilities assigned to this position.

Employee Date